

# See There

## When You Can't Be There™

Meet our new dome-shaped, ceiling-mounted network camera with a fixed lens. It's easy to mount because all angle setting is done while viewing the monitor. And power is supplied by Ethernet cable or AC adaptor (purchased separately). This makes it ideal for monitoring places where mounting and supplying power are difficult, such as near entrances, elevator doors, factories, and warehouses. It offers true Zero Distance Management that boosts business efficiency by letting you monitor essential locations anytime, from virtually anywhere.



Entrances



Stores



Warehouses



Factories

### Zero Distance Management

Zero Distance Management is a new business style made possible by Panasonic network cameras. It allows safe, smooth, economical business management that is totally free from conventional distance and time limitations.

### System Diagram

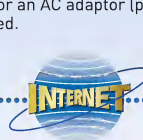
To use the BB-HCM403, Internet access equipment and a power supply consisting of either a Power over Ethernet Hub or an AC adaptor (purchased separately) are required.



Power over  
Ethernet hub

Broadband  
router

Modem



# Versatile Functions Support Your Business Management



## STORE

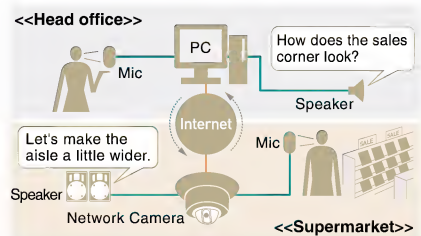


### Solve Problems from Wherever You Are Audio 2-Way Communication\*1

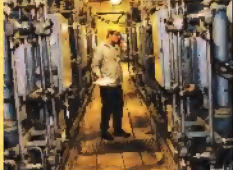
By connecting the optional speaker, you can converse\*2 while viewing the monitor. This allows more precise communication without the inconvenience of being in a distant location. For example, you can accurately troubleshoot problems in a warehouse or factory, or give instructions for urgent store display changes.

\*1 The audio feature does not work on cell phones.

\*2 Walkie-talkie type conversation.

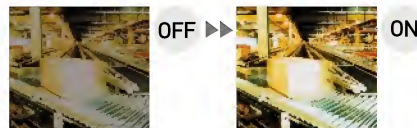


## FACTORY



### See Clearly Even in Dark Places CCD Sensor & Color Night View Mode

The BB-HCM403 camera automatically adjusts the image brightness for monitoring in dark, difficult-to-see places like dimly lit factories and warehouses at night. The BB-HCM403 provides effective security because it lets you monitor down to a brightness of only 0.2 lux.



## WAREHOUSE



### Save Time from Your Busy Schedule SD Memory Card\* Recording

By recording continuously in preset intervals, you can collect an entire day's worth of images for a quick and easy check. For example, using a 2-GB SD Memory Card with 1-minute recording intervals, you can record up to 80 days' worth (115,000 images). This is great for people who have to spend time away from the business site.

\*The SD Memory Card is sold separately. The camera supports 2-GB, 1-GB, 512-MB, 256-MB, 128-MB and 64-MB Panasonic SD Memory Cards.

#### Number of recording files per SD Memory Card (Image quality: Standard)

SD Memory Card	Resolution		
	640 x 480	320 x 240	160 x 120
	Approx. 33KB/file	Approx. 16KB/file	Approx. 5KB/file
2GB	Approx. 55,000 images	Approx. 115,000 images	Approx. 370,000 images
1GB	Approx. 28,000 images	Approx. 58,000 images	Approx. 180,000 images
512MB	Approx. 14,000 images	Approx. 29,000 images	Approx. 94,000 images

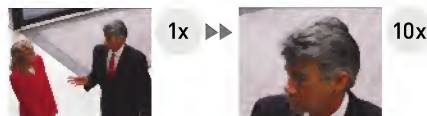
## ENTRANCE



### Check Even Small Objects in Detail 10x Digital Zoom Function\*

You can feel more secure because the zoom function gives you a clear view of objects that would be difficult to see with ordinary monitoring, like the face of a visitor walking through the door or the detailed conditions at the far back of a large factory.

\*This feature is not available when viewing on a cell phone.



## Other Features

### Motion Detection & Image Transfer Mode

The BB-HCM403 can start recording images as soon as it detects motion. Recorded images can also be sent by e-mail\* or transferred via FTP for remote confirmation.

\*POP before SMTP authentication and PLAIN and LOGIN SMTP authentication are supported. CRAM-MD5 SMTP authentication is not supported.

### IPsec Supported

In addition to authentication based on a conventional ID and password system, packet encryption is also used to bolster security and inhibit eavesdropping.

\*IPsec is an IP security protocol for data encryption standardized by IETF, an international community devoted to the standardization of Internet specifications.

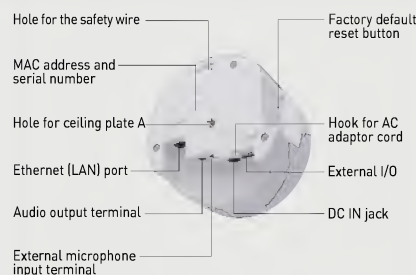
### Multi Camera Capability

Check the images from three sets of four cameras each, and converse with one camera site. Display them all at once (with no audio).

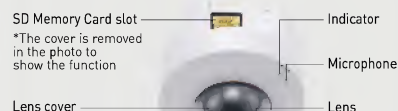


## Part Names

### Bottom View



### Front View



## Specifications [BB-HCM403]

Server			Network camera		Terminal	
Video Compression	JPEG [3 levels]		Viewing Angle	Horizontal: 53°, vertical: 40°	Interface	10Base-T/100Base-TX Ethernet RJ-45 connector x 1
Video Resolution	640 x 480, 320 x 240 [default], 160 x 120		Tilt Angle	0° up to +65° [administrator only]	External I/O	External sensor input x 2, external sensor output x 1
Image Quality	3 modes [favor clarity, standard, favor motion]		Indicator Display	Power/network communication/camera operation	External Microphone Input	Ø3.5 mm mini jack
Frame Rate*1	Max. 12 frames/second (640 x 480) Max. 30 frames/second (320 x 240 or 160 x 120)		Sensor Type	1/4 inch CCD [interlace type], 320,000 pixels (effective pixels)	Audio Output	Ø3.5 mm stereo mini jack [but output is mono.]
Security	User ID/password/IPsec		Focus	Fixed 0.5 m (20 inches)-infinity	I/O connector for sensor	G GND 1 External sensor input G GND 2 External sensor input 3 External device control output 4 DC power output terminal (10.5...13.5 VDC)
Cipher Algorithm	DES-CBC, 3DES-CBC, AES-CBC		Caliber Ratio [F No.]	F3.5	SD Memory Card Slot	2GB, 1GB, 512MB, 256MB, 128MB, 64MB
IPsec Feature	ESP encryption, ESP authentication Transport mode/tunnel mode IKE [Internet Key Exchange]		White Balance	Auto/manual/hold	General	
Input Encoding Method	Encoding with ActiveX		Exposure	Auto	Humidity	Operation: 0°C to +40°C (+32°F to +104°F) Storage: 0°C to +50°C (+32°F to +122°F)
IKE [Internet Key Exchange]	Pre-shared key		Illumination	3 to 100,000 lux [in color night view mode: 0.2 to 100,000 lux]	Terminal	Operation: 20 % to 80 % [No Condensation] Storage: 20 % to 90 % [No Condensation]
Supported Protocols	IPv4/IPv6 dual-stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP, IPsec IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NTP, IPsec		Audio		Dimension (H x W x D)	97.5 x 123 x 123 mm [3 13/16 x 4 13/16 x 4 13/16 inches]
User Access Limit	Max. 30 simultaneous accesses [max. 10 accesses with voice reception]		Audio Communication	2-Way half duplex	Weight	330g [0.73 lb.] [Only the unit]
Buffered Image*2	About 125 frames (320 x 240) with time display [when SD Memory Card is not inserted.]		Audio Play Method	Play with ActiveX	Power supply	PoE: [48 V, IEEE802.3af-compliant Power over Ethernet], AC adaptor
Message-Digest Algorithm	HMAC-MD5, HMAC-SHA-1		Audio Compression	ADPCM 32k bps	AC adaptor (Model No. BB-HCA2A: Option)	Input: 120 V AC, 60 Hz output: 12 V DC, 0.75 A
Message Transfer Condition	Alarm, timer or Motion Detection		Audio Bandwidth	300 Hz-3.4 kHz	Consumption	PoE: about 5.5 W, AC adaptor: about 5.8 W
Image Transfer Method	SMTP*3, FTP		Audio Input	Built-in microphone or external microphone		
			Audio Output*4	Audio line output terminal for external speaker		

\*1 Frame rate may slow down depending on the network environment, PC performance, image quality, SD memory recording, using IPsec or what object you view.

\*2 The maximum number of frames changes depending on the image quality and what object you buffer.

\*3 POP before SMTP authentication and SMTP authentication (PLAIN and LOGIN) are supported. SMTP authentication (CRAM-MD5) is not supported.

\*4 Connect it to an amplifier or an external speaker with a built-in amplifier.

**Panasonic**

<http://panasonic.co.jp/pcc/products/en/netwkcaml/>

OM0706SP-HCM403-LT US

All pictures simulated.

Design and specifications are subject to change without notice.

This unit is designed for use in the United States of America. Sales or use of this product in other countries may violate local laws.